

# Welcome!



On behalf of Splash! Publications, we would like to welcome you to *Balanced Equations*, one of six lessons in our *Leveled Math: Addition Book 2 Unit*. This lesson was designed by Splash! Publication's newest author and veteran teacher, Rachel MacDonald. Rachel has been teaching primary students for more than 30 years! She created this leveled Math lesson with you and your students in mind.

## The Format

Our goal is a lesson that you can use immediately. No Math problems to create or games to design. Simply make copies of the lesson for your students and start teaching.

## Leveled Math

A leveled Math program helps you differentiate instruction to meet the needs of students on all three tiers of the RTI (Response to Intervention) model.

Level 1 is the easiest and should be assigned to students who are new to the concept or need more manipulative work. Level 2 is a bit more difficult. Depending on your grade level and the ability of your students, Level 2 will most likely be assigned to the majority of your class. Level 3 adds more problems for your most capable students. A game follows each leveled concept, providing students on all three levels additional practice.

**Note:** Answers to the leveled Math practices are at the end of the lesson.

## Our Other Leveled Math: Addition Book 2 Lessons

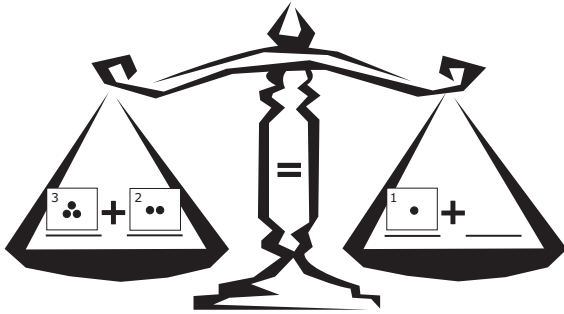
*Missing Addends to 10, Missing Addends to 15, Missing Addends to 18, 3-digit to 9, 3-digit make 10.*

Name \_\_\_\_\_

Balance each equation. Make the sum on the right side of each addition problem **equal** the sum on the left side. Use the scale and dot cards to help you.

$3 + 2 = 1 + \underline{\quad}$	$2 + 4 = 1 + \underline{\quad}$
$4 + 6 = \underline{\quad} + 8$	$6 + 2 = 5 + \underline{\quad}$
$7 + 2 = 5 + \underline{\quad}$	$5 + 2 = \underline{\quad} + 6$
$0 + 5 = 3 + \underline{\quad}$	$3 + 4 = 2 + \underline{\quad}$
$3 + 7 = \underline{\quad} + 1$	$6 + 3 = 7 + \underline{\quad}$
$3 + 2 = 1 + \underline{\quad}$	$2 + 6 = 7 + \underline{\quad}$

# Balanced Equations



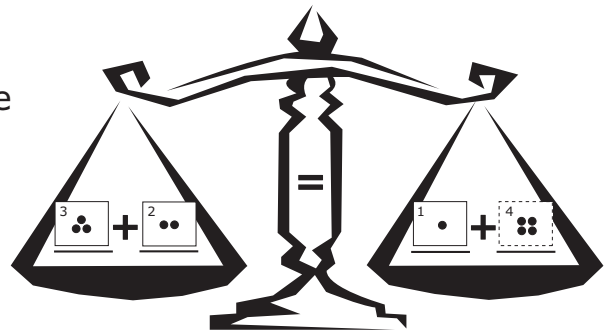
Cut out the dot cards on the bottom of the page.

Put the dot cards for the numbers you already know into the correct spots on the scale.

$$3 + 2 = 1 + \underline{\quad}$$

Count the dots to see how many more you need for the scale to balance.

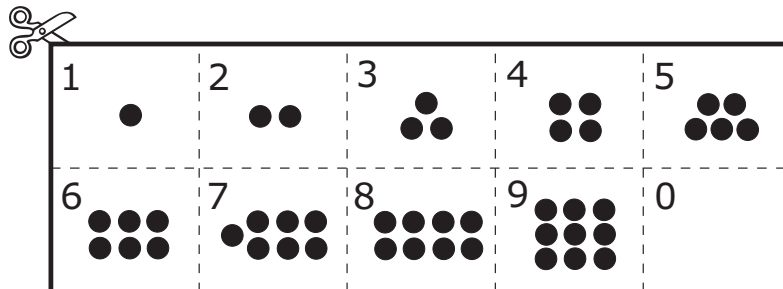
Find that dot card and put it into the empty spot on the scale.



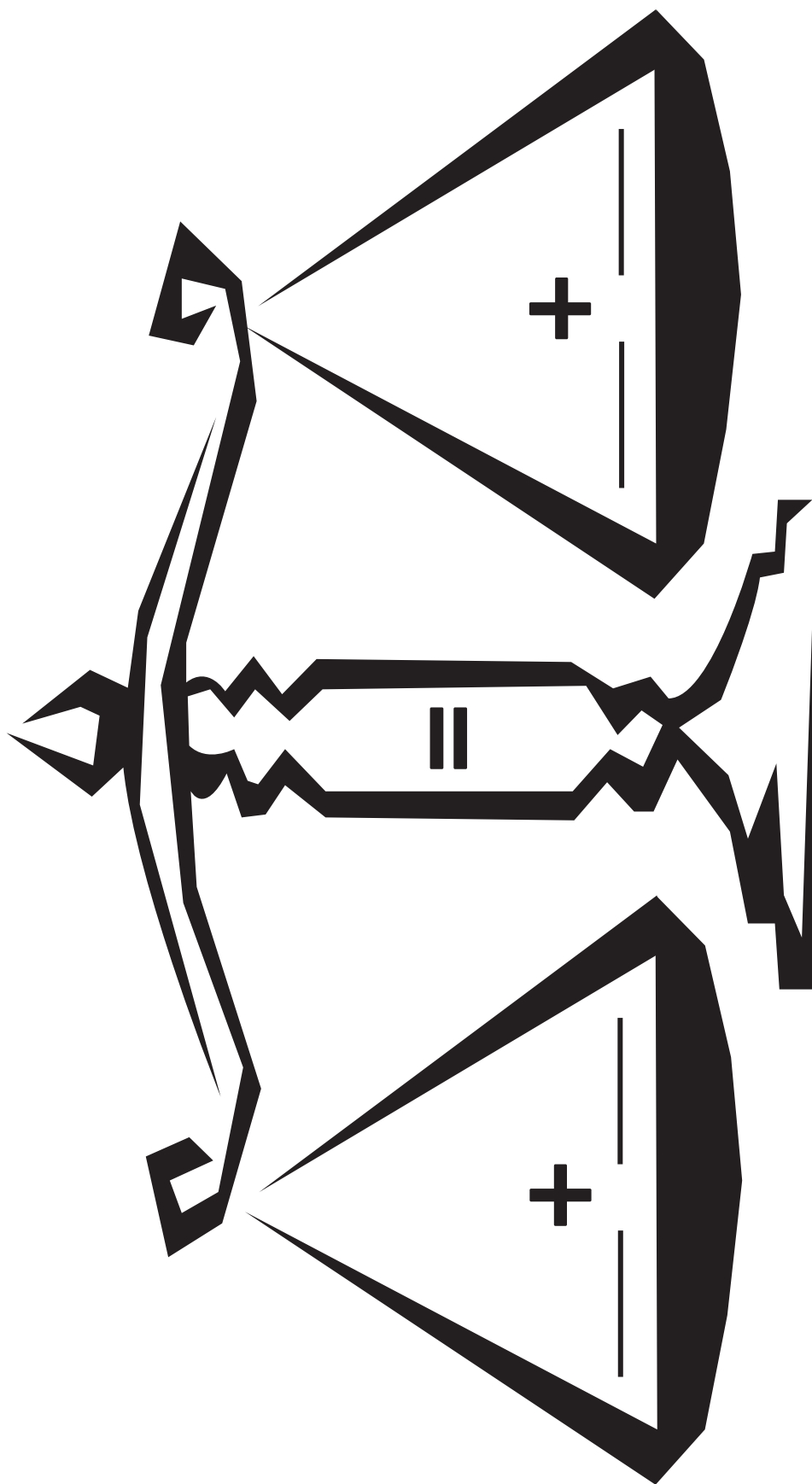
$$3 + 2 = 1 + \underline{4}$$

$$3 + 2 = 1 + \underline{4}$$

The equation is now balanced and you know the missing number for your Balanced Equations worksheet.



# Balanced Equations Scale



Name \_\_\_\_\_

Balance each equation by making the sum on the right side of each addition problem **equal** the sum on the left side.

$7 + 4 = 5 + \underline{\quad}$	$7 + 3 = \underline{\quad} + 5$
$4 + 9 = \underline{\quad} + 7$	$9 + \underline{\quad} = 7 + 7$
$4 + \underline{\quad} = 9 + 3$	$8 + 8 = 9 + \underline{\quad}$
$10 + 2 = 3 + \underline{\quad}$	$5 + 7 = \underline{\quad} + 8$
$3 + 6 = \underline{\quad} + 5$	$3 + \underline{\quad} = 6 + 4$
$8 + 3 = 7 + \underline{\quad}$	$7 + 7 = \underline{\quad} + 6$
$9 + 4 = \underline{\quad} + 10$	$5 + 8 = 9 + \underline{\quad}$
$0 + 8 = 5 + \underline{\quad}$	$10 + \underline{\quad} = 9 + 8$
$4 + \underline{\quad} = 8 + 3$	$6 + 7 = 10 + \underline{\quad}$

Find four different ways to balance these equations.

$$10 + 0 = \underline{\quad} + \underline{\quad}$$

$$\underline{\quad} + \underline{\quad}$$

$$\underline{\quad} + \underline{\quad}$$

$$\underline{\quad} + \underline{\quad}$$

$$7 + 5 = \underline{\quad} + \underline{\quad}$$

$$\underline{\quad} + \underline{\quad}$$

$$\underline{\quad} + \underline{\quad}$$

$$\underline{\quad} + \underline{\quad}$$

Name \_\_\_\_\_

Balance each equation by making the sum on the right side of each addition problem **equal** the sum on the left side.

$2 + 3 = 1 + \underline{\quad}$	$6 + 9 = \underline{\quad} + 5$
$7 + 5 = \underline{\quad} + 6$	$5 + \underline{\quad} = 7 + 4$
$7 + \underline{\quad} = 5 + 5$	$9 + 4 = 7 + \underline{\quad}$
$7 + 7 = 9 + \underline{\quad}$	$5 + 3 = \underline{\quad} + 4$
$8 + 8 = \underline{\quad} + 9$	$3 + \underline{\quad} = 5 + 2$
$8 + 4 = 7 + \underline{\quad}$	$3 + 6 = \underline{\quad} + 5$
$6 + 4 = \underline{\quad} + 3$	$8 + 3 = 1 + \underline{\quad}$
$7 + 2 = 1 + \underline{\quad}$	$4 + \underline{\quad} = 9 + 2$
$3 + \underline{\quad} = 4 + 2$	$8 + 2 = 1 + \underline{\quad}$
$6 + 2 = \underline{\quad} + 6$	$4 + 4 = 7 + \underline{\quad}$
$5 + \underline{\quad} = 9 + 2$	$1 + 8 = 8 + \underline{\quad}$
$4 + 2 = 0 + \underline{\quad}$	$7 + 5 = \underline{\quad} + 9$

Your teacher will give you some special paper for creating your own balanced equations.

Name \_\_\_\_\_

Create your own balanced equations. Make sure the sum on the left side of the addition problem **equals** the sum on the right side.

$$\underline{3} + \underline{5} = \underline{\quad} + \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{6} + \underline{7}$$

$$\underline{6} + \underline{\quad} = \underline{5} + \underline{\quad}$$

$$\underline{\quad} + \underline{4} = \underline{\quad} + \underline{3}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad} + \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad} + \underline{\quad}$$

# Start Your Engines!



## Make the Game:



Each player chooses and cuts out one set of 20 race car cards and one matching race car game piece. (Cut on the solid and dotted black lines.)

Players color the race cars on each of their cards and their game piece.

Each player needs one Start Your Engines! Racetrack.

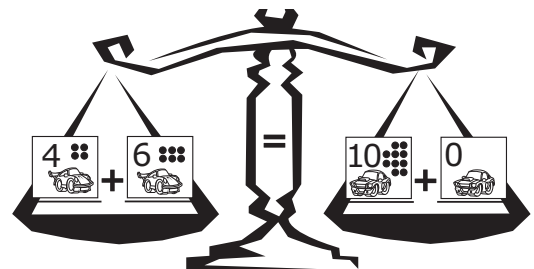
Players also need one die and one Balanced Equations Scale.

## Play the Game:

This game is for 2 players.

Players spread their race car cards face-up around their Start Your Engines! game boards and put their game pieces on start.

Player 1 chooses two cards, 1 - 9, to place on one side of the Balanced Equations Scale.



Player 2 must choose two different cards to place on the other side of the scale to balance the equation.

If the equation balances, Player 1 rolls the die and moves his or her race car the correct number of spaces on the Start Your Engines! Racetrack. Player 1 follows the directions on the game board space. It is now Player 2's turn.

The first player to reach the finish line on his or her Start Your Engines! Racetrack is the winner.

# Start Your Engines! Racetrack

**Start!**

**Engine troubles!**  
*Go back to Start.*

**Flat Tire!**  
*Go back 2 spaces.*

**Driving too slow!**  
*Go back 1 space.*

**Good driving!**  
*Roll again.*

**Wet road!**  
*Skip a turn.*

**Out of gas!**  
*Go back 3 spaces.*

**Nice car!**  
*Move ahead 2 spaces.*

**Wrong way!**  
*Go back 2 spaces.*

**Hit a wall!**  
*Go back 1 space.*

**Helped a friend!**  
*Roll again.*

**Almost in!**  
*Move ahead 2 spaces.*

**Pit stop!**  
*Skip a turn.*

**Got lost!**  
*Back 2 spaces.*

**Finish!**

# Balanced Equations Scale



# Start Your Engines!

## Answer Sheet

**2**

$0 + 2 = 2$

$1 + 1 = 2$

**3**

$0 + 3 = 3$

$1 + 2 = 3$

**4**

$0 + 4 = 4$

$1 + 3 = 4$

$2 + 2 = 4$

**5**

$0 + 5 = 5$

$1 + 4 = 5$

$2 + 3 = 5$

**6**

$0 + 6 = 6$

$1 + 5 = 6$

$2 + 4 = 6$

$3 + 3 = 6$

**7**

$0 + 7 = 7$

$1 + 6 = 7$

$2 + 5 = 7$

$3 + 4 = 7$

**8**

$0 + 8 = 8$

$1 + 7 = 8$

$2 + 6 = 8$

$3 + 5 = 8$

$4 + 4 = 8$

**9**

$0 + 9 = 9$

$1 + 8 = 9$

$2 + 7 = 9$

$3 + 6 = 9$

$4 + 5 = 9$

**10**

$0 + 10 = 10$

$1 + 9 = 10$

$2 + 8 = 10$

$3 + 7 = 10$

$4 + 6 = 10$

$5 + 5 = 10$

**11**

$1 + 10 = 11$

$2 + 9 = 11$

$3 + 8 = 11$

$4 + 7 = 11$

$5 + 6 = 11$

**12**

$2 + 10 = 12$

$3 + 9 = 12$

$4 + 8 = 12$

$5 + 7 = 12$

$6 + 6 = 12$

**13**

$3 + 10 = 13$

$4 + 9 = 13$

$5 + 8 = 13$

$6 + 7 = 13$

**14**

$4 + 10 = 14$

$5 + 9 = 14$

$6 + 8 = 14$

$7 + 7 = 14$

**15**

$5 + 10 = 15$

$6 + 9 = 15$

$7 + 8 = 15$

**16**

$6 + 10 = 16$

$7 + 9 = 16$

$8 + 8 = 16$

**17**

$7 + 10 = 17$

$8 + 9 = 17$

**18**

$8 + 0 = 18$





















$9 + 9 = 18$



# Player 1

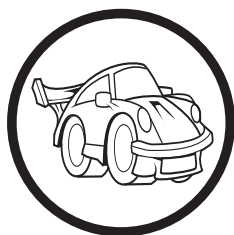
## Race Car Cards



0 	1 • 	2 •• 	3 ••• 	4 •••• 
5 ••••• 	6 •••••• 	7 ••••••• 	8 •••••••• 	9 ••••••••• 
10 •••••••••• 	1 • 	2 •• 	3 ••• 	4 •••• 
5 ••••• 	6 •••••• 	7 ••••••• 	8 ••~••••••• 	9 ••••••••• 





















# Player 1

## Race Car Game Piece

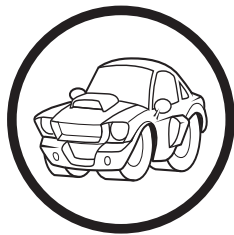


## Player 2 Race Car Cards



0 	1 • 	2 •• 	3 ••• 	4 •••• 
5 ••••• 	6 •••••• 	7 ••••••• 	8 •••••••• 	9 ••••••••• 
10 •••••••••• 	1 • 	2 •• 	3 ••• 	4 •••• 
5 ••••• 	6 •••••• 	7 ••••••• 	8 ••~••••••• 	9 ••••••~••••• 

## Player 2 Race Car Game Piece



# Answers



Balanced Equations, Level 1

Name \_\_\_\_\_

Balance each equation. Make the sum on the right side of each addition problem **equal** the sum on the left side. Use the scale and dot cards to help you.

$3 + 2 = 1 + \underline{4}$	$2 + 4 = 1 + \underline{5}$
$4 + 6 = \underline{2} + 8$	$6 + 2 = 5 + \underline{3}$
$7 + 2 = 5 + \underline{4}$	$5 + 2 = \underline{1} + 6$
$0 + 5 = 3 + \underline{2}$	$3 + 4 = 2 + \underline{5}$
$3 + 7 = \underline{9} + 1$	$6 + 3 = 7 + \underline{2}$
$3 + 2 = 1 + \underline{4}$	$2 + 6 = 7 + \underline{1}$

Balanced Equations, Level 2

Name \_\_\_\_\_

Balance each equation by making the sum on the right side of each addition problem **equal** the sum on the left side.

$7 + 4 = 5 + \underline{6}$	$7 + 3 = \underline{5} + 5$
$4 + 9 = \underline{6} + 7$	$9 + \underline{5} = 7 + 7$
$4 + \underline{8} = 9 + 3$	$8 + 8 = 9 + \underline{7}$
$10 + 2 = 3 + \underline{9}$	$5 + 7 = \underline{4} + 8$
$3 + 6 = \underline{4} + 5$	$3 + \underline{7} = 6 + 4$
$8 + 3 = 7 + \underline{4}$	$7 + 7 = \underline{8} + 6$
$9 + 4 = \underline{3} + 10$	$5 + 8 = 9 + \underline{4}$
$0 + 8 = 5 + \underline{3}$	$10 + \underline{7} = 9 + 8$
$4 + \underline{7} = 8 + 3$	$6 + 7 = 10 + \underline{3}$

Find four different ways to balance these equations.

$10 + 0 = \frac{9}{8} + \frac{1}{2}$	$7 + 5 = \frac{9}{8} + \frac{3}{4}$
$\frac{7}{6} + \frac{3}{4}$	$\frac{7}{6} + \frac{5}{6}$
$\frac{6}{6} + \frac{4}{6}$	$\frac{8}{6} + \frac{4}{6}$

Balanced Equations, Level 3

Name \_\_\_\_\_

Balance each equation by making the sum on the right side of each addition problem **equal** the sum on the left side.

$2 + 3 = 1 + \underline{4}$	$6 + 9 = \underline{10} + 5$
$7 + 5 = \underline{6} + 6$	$5 + \underline{6} = 7 + 4$
$7 + \underline{3} = 5 + 5$	$9 + 4 = 7 + \underline{6}$
$7 + 7 = 9 + \underline{5}$	$5 + 3 = \underline{4} + 4$
$8 + 8 = \underline{7} + 9$	$3 + \underline{4} = 5 + 2$
$8 + 4 = 7 + \underline{5}$	$3 + 6 = \underline{4} + 5$
$6 + 4 = \underline{7} + 3$	$8 + 3 = 1 + \underline{10}$
$7 + 2 = 1 + \underline{8}$	$4 + \underline{7} = 9 + 2$
$3 + \underline{3} = 4 + 2$	$8 + 2 = 1 + \underline{9}$
$6 + 2 = \underline{2} + 6$	$4 + 4 = 7 + \underline{1}$
$5 + \underline{6} = 9 + 2$	$1 + 8 = 8 + \underline{1}$
$4 + 2 = 0 + \underline{6}$	$7 + 5 = \underline{3} + 9$

Your teacher will give you some special paper for creating your own balanced equations.

Balanced Equations, Level 3

Name \_\_\_\_\_

Create your own balanced equations. Make sure the sum on the left side of the addition problem **equals** the sum on the right side.

$\underline{3} + \underline{5} = \underline{\quad} + \underline{\quad}$
$\underline{\quad} + \underline{\quad} = \underline{6} + \underline{\quad}$
$\underline{6} + \underline{\quad} = \underline{5} + \underline{\quad}$
$\underline{\quad} + \underline{\quad} = \underline{\quad} + \underline{3}$
$\underline{\quad} + \underline{\quad} = \underline{\quad} + \underline{\quad}$
$\underline{\quad} + \underline{\quad} = \underline{\quad} + \underline{\quad}$